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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
YOUNG, MICAH PAUL	
ART UNIT	**PAPER NUMBER**
1618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/834,410	SAWADA ET AL.	
	Examiner	Art Unit	
	Micah-Paul Young	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/20/07*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-8 and 10-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-8 and 10-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Acknowledgment of Papers Received: Amendment/Response dated 3/20/07.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,3,4,7,8,11,12,14-19,24 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen et al (USPN 5,922,352 hereafter '352). The claims are drawn to a compression-coated tablet comprising a coating and a core tablet. The core tablet comprises an erodible filler, while the coating comprises a hydrogel-forming polymer and a hydrophilic base material.

3. The '352 patent teaches a compression-coated tablet comprising a distinct core and coating (abstract). The core comprises fillers such as lactose or sucrose (col. 3, lin. 18-21, examples). The coating comprises hydrophilic bases such as lactose and hydrogel-forming such as polyethylene oxide having a weight average of 100,000 to 6,000,000 (col. 3, lin. 30-35). The fillers are present in amounts 90%-70%, the drug is present while the hydrogel-forming polymer is present 90%-50% and the hydrophilic base is present 10%-20% (col. 4, lin. 45-67). The drug is present in a concentration less than 75% of the total weight (example). The core is also enterically coated meaning the release is within the lower digestive tract (examples). Drugs useful for the compression-coated tablet of the reference include nifedipine, nicardipine, verapamil and diltiazem all drugs that are metabolized by and/or inhibit the metabolism of

cytochrome P enzymes (col., 4, lin. 5-10). Regarding the percentage erosion of the filler, it is the position of the Examiner that this percentage would b inherent to any filler meeting the limitations of the claims. Sucrose and lactose are named in the specification as capable and useful fillers, thus these filler, present in the prior art would act identically and erode to the given percentage. Applicant is invited to provide evidence as to how the sucrose of the instant claims would behave differently than the sucrose of the prior art. Further no temporal data is given regarding when or where the eroding takes place. Any filler will erode 40-90% given enough time in the digestive tract, regardless of coating and presentation.

4. Regarding the claim reciting the determination of the eroding percentage, it is the position of the Examiner that the limitations render the claim a product by process claim. The claim is drawn to a tablet, yet recited methods of determination. Applicant is reminded that regarding product-by-process claims, even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)

5. With these things in mind, the disclosures render the claims anticipated.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 5,6,10,13,21,22,23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined disclosures of Chen et al (USPN 5,922,352 hereafter '352) in view of Sako et al (EP 0 661 045 hereafter '045). The claims are drawn to a compression-coated tablet comprising a coating and a core tablet. The core tablet comprises an erodible filler, while the coating comprises a hydrogel-forming polymer and a hydrophilic base material.

9. As discussed above the '352 patent discloses a compression-coated tablet comprising a distinct core and coating structure, where the coating comprising a hydrogel-forming polymer, and a hydrophilic base, where the core comprises a filler. The '352 patent, while disclosing various erodible fillers, does not disclose each of the recited fillers of the instant claims. However these fillers are common in the art and easily substitutable as seen in the '045 patent.

10. The '045 reference teaches a compression molded oral formulation comprising a core comprising a drug (pg. 3, lin. 1-29), along with solubilizers that help improve the solubility of the drug in water such as citric acid, tartaric acid, and polyethylene glycol (pg 3, lin. 30-43). The core is coated with a hydrogel formulation comprising a hydrophilic base such as polyethylene

glycols (pg. 3, lin. 49-pg. 4, lin. 7) and hydrogel-forming polymers with viscosities not less than 1000 cps in 1% aqueous solution such as polyethylene oxides (pg. 4, lin. 8-51). The formulation can include hydrogel-forming polymers in the core such as hydroxypropylmethylcellulose (pg. 3, lin. 37). The formulation further includes yellow iron sesquioxide (pg. 13, lin. 10-15). The drugs include lidocaine, nicardipine, and quindine, agents that are all metabolized by CYP3A4 (pg. 3, lin. 5-25). Upon administration, water is absorbed into the core of the formulation during its stay in the upper intestine, essentially dissolving the core and releasing the drug slowly as it travels to the colon (pg 2, lin. 35-40). The drug is present in the formulation in concentrations from 80-85%, the hydrophilic base is present in concentration from 5-80%, the hydrogel-forming polymer is present in concentration greater than 16% and solubilizing agent that aids in water absorption into the core is present in concentrations from 15-90% (pg. 3 lin. 25-pg. 5, lin. 13). The formulation remains within the digestive tract for up to 12 hours and within that time the formulation dissolves 70-100% (figures). The reference establishes the level of skill in the art regarding specific fillers and their relation to compression coatings and hydrogel-forming compression tablets. The artisan of ordinary skill would have been able to include the fillers of the '045 reference into the '352 since both formulation disclose similar formulations.

11. With these things in min it would have been obvious to follow the suggestions of the prior art in order to provide an improved control-release formulation. The coating and core arrangement of the '352 reference would have provided improved and more controllable release of the active agents. The fillers and other excipients of the '045 reference would have provided the stability and protection needed for the dosage form. It would have been obvious to follow

the teachings and suggestions of the art with an expected result of once a day tablet useful for treating various disorders.

12. Claims 20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined disclosures of Chen et al (USPN 5,922,352 hereafter '352) and Taniguchi et al (EP 0 709 386 hereafter '386). The claims are drawn to a timed-release composition comprising a core and a coating where the core comprises fused benzazepine derivative.

13. As discussed above the '352 reference discloses a timed-release composition with a core and coating. The drugs listed by the '352 can be metabolized by CYP3A4 and cytochrome P-450. However the reference does not disclose the specific benzazepine derivative of the instant claims.

14. The '386 patent discloses a fused benzazepine derivative, which can be useful as a vasopressin antagonist. The drug can be formulated into tablets using conventional excipients such as sucrose, gelatin and hydroxypropylcellulose (pg. 27, lin. 23 – 37). The drug of the invention can be used in the treatment of various disorders ranging from cerebrovascular disease to renal disorders (pg. 23, lin. 24 – 44). A skilled artisan would be able to include the compound of '386 into the formulation of '352 since the '352 reference uses similar drugs to treat similar disorders.

15. With these things in mind one of ordinary skill in the art would have been motivated to combine the '386 with the formulation of '352 in order to impart improved treatment of vascular and renal disorders. It would have been obvious to a skilled artisan to combine the suggestions

and teachings of the prior art with an expected result of a timed-release formulation with limited drug interaction and improved vascular and renal disorder treatment properties.

Response to Arguments

16. Applicant's arguments filed 3/20/07 have been fully considered but they are not persuasive. Applicant argues that:

a. The '352 patent does not anticipate the instant claims since it discloses a delayed release formulation that differs form the instant claims.

b. The combination of '352 and the '045 patent does not obviate the instant claims since the '352 patent does not anticipate and the '045 patent does not remedy those deficiencies.

c. The combination of the '352 and '386 do not obviate since the instant claims since the '352 patent does not anticipate and the '045 patent does not remedy these deficiencies.

17. Regarding argument a., it remains the position of the Examiner that the disclosures of the '352 patent continue to anticipate the instant claims. Applicant first argues the semantics of times release, extended release verses a timed-release formulation. It is the position of the Examiner that such distinctions are irrelevant to the material properties of the instant claims regarding the prior art. The claims comprise a core and a coating. The core comprises a drug and filler and is absent a hydrogel polymer. The '352 patent teaches a core comprising a filler and an enteric polymer coating the particles. There are no provisions in the instant claims that rule out the inclusion of enteric polymers as long as they do not form hydrogels. Applicant argues that the invention envisions two distinct layers. It is the position of the Examiner that two

such layers are provided in the '352 patent by the core and the continuous compressed outer layer comprising polymers that form a hydrogel (claim 1). The limitations regarding to core and the coating have been met by the disclosures of the '352 patent. Regarding the product-by-process distinctions, it remains the position of the Examiner that such arguments are valid. The claims recite a product in two variable states: (1) where the core comprises a filler, and (2) where up to 90% of the core is eroded in the digestive tract. The eroding of this filler is a process limitation within the product claim. However it remains the position of the Examiner that such a limitation does not impart patentability to the claims since it would be inherent to any dosage from comprising the same fillers as the instant invention. The fillers merely must be capable of performing such action. As discussed above the filler useful for the practice of the invention are disclosed in the '352 patent fully anticipating the limitation. For these reasons at least the claims remain anticipated by the disclosures of the '352 patent.

18. Regarding argument b., as discussed above it is the position of the Examiner that the '352 patent combined with the '045 patent obviates the claimed invention. First in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The '352 patent discloses a compression coated core formulation comprising fillers in the core and hydrogel polymers in the coating. The '352 patent discloses erodible fillers listed in the instant specification as useful, however different from those of the instant claims. The '045 patent provides the functional equivalents to the fillers disclosed in the '352 patent. Applicant argues that since the '045 patent is of a different structure than the

instant claims and has hydrogel polymers dispersed throughout the entirety of the formulation. However the reference is relied upon for its disclosure of fillers and not for its structure. If relied upon for its structure the reference would be an anticipating reference and not a secondary reference for obviousness. The '045 patent establishes the level of skill in the art regarding erodible dosage forms comprising filler and hydrogel coatings. The artisan of ordinary skill would be motivated to include the specific fillers of the '045 in order to improve the release of the active agents in the core. For these reasons the claims remain obviated.

19. Regarding argument c., again it is the position of the Examiner that combination obviates the claims. The '352 patent discloses a compressed coated core comprising drugs and fillers in the core and hydrogel polymers in the coating. The '386 patent discloses the specific benzazepine derivative of the instant claims. The artisan would be motivated to include the drug of the '386 into the formulation of the '352 since the compounds disclosed by the '352 patent can also be metabolized by the same compounds. The '352 patent would provide an improved mode of delivery for these benzazepine compounds. For these reasons the claims remain obviated.

Conclusion

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Micah-Paul Young whose telephone number is 571-272-0608. The examiner can normally be reached on M-F 6:00-3:30 every other Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Micah-Paul Young
Examiner
Art Unit 1618

MP Young

MICHAEL G. HARTLEY
SUPERVISORY PATENT EXAMINER